

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0082225916](#)
Status: **Active**
Description: 3.96mm (.156") Pitch Round Conductor Flat Cable - 22 AWG (7 x 30) Stranded, Topcoat, 16 Circuits, Reel 30.48m (100.0') Length

Documents:

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR61126
 UL E61522

General

Product Family Cable
 Series [8868](#)
 Crimp Quality Equipment Yes
 Geographic Area Asia
 Product Name Ribbon

Physical

Cable Length 30.48m (100.0')
 Circuits (Loaded) 16
 Insulation PVC
 Packaging Type Reel
 Pitch - Term. Interface (in) 0.156 In
 Pitch - Term. Interface (mm) 3.96 mm
 Temperature Range - Operating -20°C to +105°C
 Wire Size AWG 22
 Wire/Cable Type (7x30) Stranded, Topcoat

Electrical

Current - Maximum per Contact N/A
 Voltage - Maximum 300V

Material Info

Old Part Number 8868-16-100B

Reference - Drawing Numbers

Sales Drawing SD-8868-001



EU RoHS

**ELV and RoHS
 Compliant
 REACH SVHC
 Not Reviewed
 Halogen-Free
 Status
 Not Reviewed**

China RoHS



Need more information on product environmental compliance?

Email productcompliance@molex.com
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

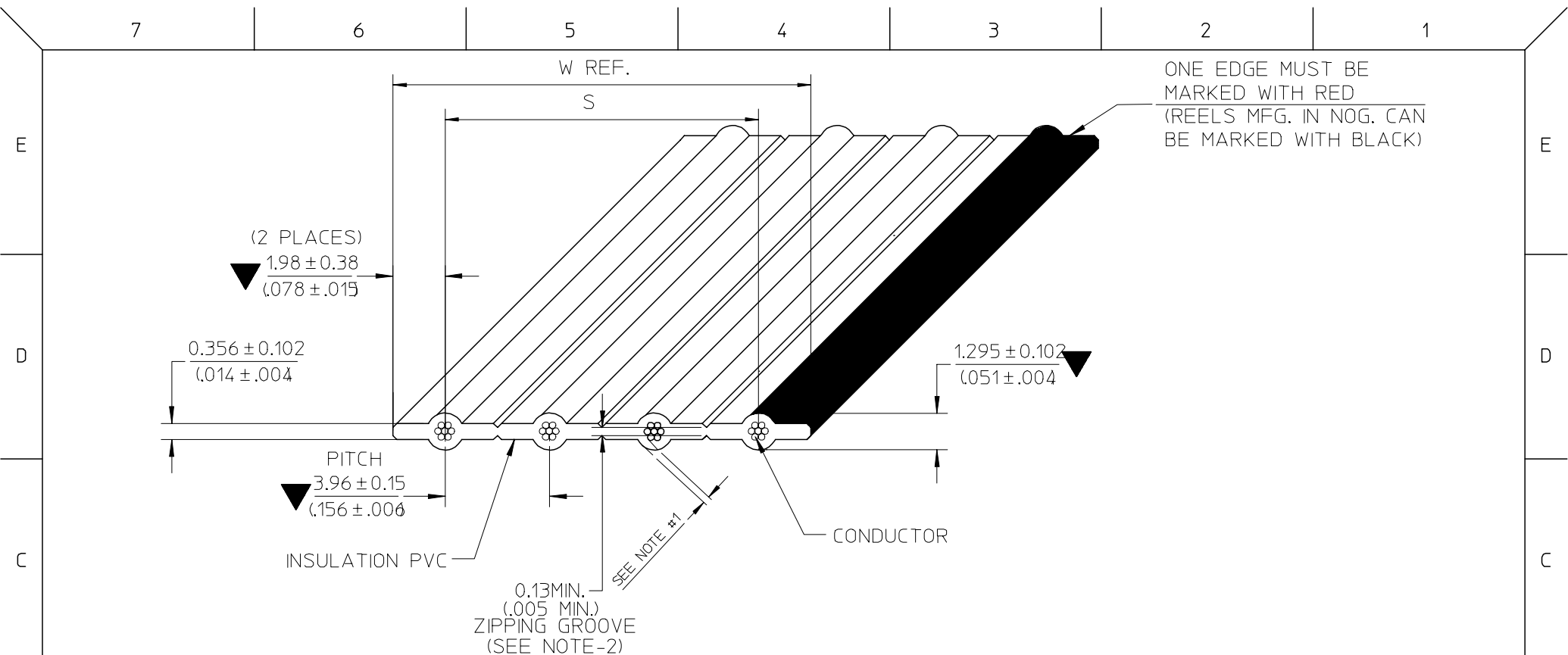
Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series

[8868Series](#)

Use With

[7674](#) KK® IDT Trifurcon Contact. [7675](#) KK® IDT Double Cantilever Contact



- NOTE :
1. THE CABLE SHALL HAVE A MINIMUM OF 0.178mm. (.007") THICKNESS INSULATION AT ANY POINT
 2. RIP TEST:
 - THE 0.13mm. (.005") ZIPPING GROOVE SHALL BE CAPABLE OF BEING RIPPED BY HAND WITHIN THE RECESS, WITHOUT EXPOSING THE ADJACENT CONDUCTORS
 3. RoHS AND LEAD FREE COMPLIANT
 4. SPECIAL REQUIREMENT: N/A

| | | | |
|--------------|-----------|--|----------|
| B | E-07-0748 | B ₂ : ADD NON-OPERATING TEMP. B ₁ : ADD SOLDERING CONDITION | 07/09/27 |
| A | N/A | INITIAL DRAFT | 06/08/09 |
| REV. HISTORY | EC NO. | DETAIL | DATE |

SEE CHANGE DETAIL
 EC NO: THL2008-0015
 DRWN: CPANSAKHOM 2007/11/28
 CHKD: DNARINTARA 2007/11/29
 APPR: SVIRATJAPOL 2007/12/04

| | |
|-----------------|-------------|
| QUALITY SYMBOLS | DESCRIPTION |
| ▽=3 | |
| ▽=0 | |

| | |
|--|-------------|
| GENERAL TOLERANCES (UNLESS SPECIFIED) | |
| | mm INCH |
| 4 PLACES | ± --- ± --- |
| 3 PLACES | ± --- ± --- |
| 2 PLACES | ± --- ± --- |
| 1 PLACE | ± --- ± --- |
| ANGULAR ± --- ° | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | |

| | | | |
|-----------------|------------|---|--------------|
| DIMENSION STYLE | | SCALE | DESIGN UNITS |
| MM/IN | | NTS | INCH |
| DRAWN BY | DATE | TITLE | |
| CPANSAKHOM | 2006/08/09 | FCB ROUND CONDUCTOR 3.96MM(.156)CENTERS PVC. 22AWG STRANDED TOPCOATED | |
| CHECKED BY | DATE | MOLEX INCORPORATED | |
| PMEECHAI | 2006/08/09 | MATERIAL NO. DOCUMENT NO. SHEET NO. | |
| APPROVED BY | DATE | SD-8868-001 | 1 OF 3 |
| SVIRATJAPOL | 2006/08/09 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | |

7 6 5 4 3 2 1

E

E

SPECIFICATIONS

PHYSICAL

CONDUCTOR SPACING ----- 3.96 (.156") ϕ TO ϕ
 WIRE GAUGE ----- 22 AWG(7/30) STRANDED TOPCOATED
 INSULATION ----- P.V.C GRAY (LEAD FREE)

AGENCY

U.L. STYLE NO. ----- 2651
 TEMPERATURE RATING ----- -20°C TO 105°C
 VOLTAGE RATING ----- 300V.MAX.
 FLAMMABILITY RATING ----- VW-1

ELECTRICAL

CONDUCTOR RESISTANCE (D.C.) ----- 17 m OHMS/FT. MAX.
 CHARACTERISTIC IMPEDANCE ----- 140 OHMS NOM. (GS)
 123 OHMS NOM. (GSG)
 CAPACITANCE ----- 4.7 pF/FT. NOM. (GS)
 8.5 pF/FT. NOM. (GSG)
 PROPAGATION DELAY ----- 1.4 ns/FT. NOM.
 INSULATION RESISTANCE ----- 10⁴ M OHMS (10FT. SAMPLE)
 DIELECTRIC WITHSTAND VOLTAGE ----- 2000 VRMS/MINUTE

GENERAL

$\triangle B_2$ NON-OPERATING TEMPERATURE ----- -20°C TO 105°C
 FAULTS AND/OR SPLICES ----- 1/REEL MAX. 100⁺³₀ FT. (30.48^{+0.914}₀ M.)/REEL
 20FT. (6.096M.) MIN. LENGTH

$\triangle B_1$ SOLDERING CONDITION

SOLDER TEMPERATURE ----- 260°C. MAX.
 SOLDERING TIME ----- 3 SECOND, MAX.
 INSULATION SHRINK ----- 2MM. NOM

D

D

C

C

B

B

A

A

| | | | | | | | | | |
|--|--|---------------------------------------|--------------------|---|------------------|---|------------------------|------------------------|-----------|
| SEE CHANGE DETAIL EC NO: THL2008-0015 DRWN: CPANSAKHOM 2007/11/28 CHKD: DNARINTARA 2007/11/29 APPR: SVIRATJAPOL 2007/12/04 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE | | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION | |
| | $\blacktriangledown =$ $\triangle C =$ | mm | INCH | MM/IN | | NTS | INCH | | |
| | | 4 PLACES \pm ---- | \pm ---- | DRAWN BY DATE | | TITLE | | | |
| | | 3 PLACES \pm ---- | \pm ---- | CPANSAKHOM 2006/08/09 | | FCB ROUND CONDUCTOR 3.96MM(.156)CENTERS PVC. 22AWG STRANDED TOPCOATED | | | |
| | | 2 PLACES \pm ---- | \pm ---- | CHECKED BY DATE | | MOLEX MOLEX INCORPORATED | | | |
| | 1 PLACE \pm ---- | \pm ---- | PMEECHA 2006/08/09 | | APPROVED BY DATE | | SVIRATJAPOL 2006/08/09 | | SHEET NO. |
| | ANGULAR \pm ----° | | MATERIAL NO. | | DOCUMENT NO. | | | | 2 OF 3 |
| | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SEE CHART | | SD-8868-001 | | | | |
| | | | SIZE | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | |

6

5

4

3

2

1

7 6 5 4 3 2 1

| CHART A DIMENSIONS MM. (INCHES) | | | | SHIPPED ON 100 FT. REELS | |
|------------------------------------|----------------|-------------------------|-----------------|-----------------------------|--------------|
| ENG. NO. | NO.OF COND. | DIMENSION S | DIM. W (REF) | ENGINEERING NO. | ORDER NO. |
| 8868- 2 | 2 | 3.96±0.15 (.156±.006) | 7.92 (.312) | 8868-02-100B | 82-22-5902 |
| 8868- 3 | 3 | 7.92±0.25 (.312±.010) | 11.89 (.468) | ▲ -03- ▲ | ▲ 03 |
| 8868- 4 | 4 | 11.89±0.38 (.468±.015) | 15.85 (.624) | ▲ -04- ▲ | ▲ 04 |
| 8868- 5 | 5 | 15.85±0.38 (.624±.015) | 19.81 (.780) | ▲ -05- ▲ | ▲ 05 |
| 8868- 6 | 6 | 19.81±0.38 (.780±.015) | 23.77 (.936) | ▲ -06- ▲ | ▲ 06 |
| 8868- 7 | 7 | 23.77±0.38 (.936±.015) | 27.74 (1.092) | ▲ -07- ▲ | ▲ 07 |
| 8868- 8 | 8 | 27.74±0.38 (1.092±.015) | 31.70 (1.248) | ▲ -08- ▲ | ▲ 08 |
| 8868- 9 | 9 | 31.70±0.38 (1.248±.015) | 35.66 (1.404) | ▲ -09- ▲ | ▲ 09 |
| 8868-10 | 10 | 35.66±0.38 (1.404±.015) | 39.62 (1.560) | ▲ -10- ▲ | ▲ 10 |
| 8868-11 | 11 | 39.62±0.38 (1.560±.015) | 43.59 (1.716) | ▲ -11- ▲ | ▲ 11 |
| 8868-12 | 12 | 43.59±0.38 (1.716±.015) | 47.55 (1.872) | ▲ -12- ▲ | ▲ 12 |
| 8868-13 | 13 | 47.55±0.38 (1.872±.015) | 51.51 (2.028) | ▲ -13- ▲ | ▲ 13 |
| 8868-14 | 14 | 51.51±0.38 (2.028±.015) | 55.47 (2.184) | ▲ -14- ▲ | ▲ 14 |
| 8868-15 | 15 | 55.47±0.38 (2.184±.015) | 59.44 (2.340) | ▲ -15- ▲ | ▲ 15 |
| 8868-16 | 16 | 59.44±0.38 (2.340±.015) | 63.40 (2.496) | ▼ -16- ▼ | ▼ 16 |

ENGINEERING NO.

8868-XX-XXXX

A B C D

- A : CABLE 3.96mm. (.156") CENTERS 22 AWG STRANDED TOPCOATED
- B : CONDUCTOR SIZE (AVAILABILITY 2 THROUGH 16)
- C : CABLE LENGTH 100FT. (30.48M.)
- D : A = INCHES
B = FEET

| | | | | | | | | | | | | |
|--|---------------------------|-----------------|----------------|---------------------------------------|--|--------------------------|----------------------------|--------------------|--|------------------------|---------------------|--|
| SEE CHANGE DETAIL EC NO: THL2008-0015 DRWN:CPANSAKHOM 2007/11/28 CHKD:DNARINTARA 2007/11/29 APPR:SVIRATJAPOL 2007/12/04 | DESCRIPTION ▼ = ▽ = | QUALITY SYMBOLS | | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM/IN | | SCALE NTS | DESIGN UNITS INCH | THIRD ANGLE PROJECTION | | |
| | | | | | | | | | | | | |
| | | 4 PLACES | ± --- | ± --- | mm | INCH | DRAWN BY CPANSAKHOM | DATE 2006/08/09 | TITLE FCB ROUND CONDUCTOR 3.96MM(.156)CENTERS PVC. 22AWG STRANDED TOPCOATED | | | |
| | | 3 PLACES | ± --- | ± --- | | | CHECKED BY PMEECHAI | DATE 2006/08/09 | MATERIAL NO. SEE CHART | | | |
| | | 2 PLACES | ± --- | ± --- | | | APPROVED BY SVIRATJAPOL | DATE 2006/08/09 | DOCUMENT NO. SD-8868-001 | | SHEET NO. 3 OF 3 | |
| 1 PLACE | ± --- | ± --- | ANGULAR ± ---° | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | | | | | |
| SIZE A 4 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | | | |

6 5 4 3 2 1